

a metal leadframe, including a plurality of elongate leads arrayed around a central region thereof, each lead having an outer end extending away from the central region and an inner end extending toward the central region;

a spatulate locking pad in an outer portion of each lead adjacent to its outer end;

a spatulate wire bonding pad in an inner portion of each lead adjacent to its inner end;

a land defined on a lower surface of each lead between the locking pad and the bonding pad; and,

a die pad attached to the leadframe in the central region thereof and adjacent to the inner ends of the leads, the die pad having an upper surface and a lower surface, the lower surface having a central portion and a recessed shoulder extending around the central portion.

21. (New) A leadframe for a semiconductor package, comprising:

1 a plurality of elongate metal leads arrayed around a central region, each lead
2 having an outer end extending away from the central region and an inner end extending
3 toward the central region;

5 a spatulate pad formed into the inner and outer ends of each lead;

6 a land defined on a lower surface of each lead by and between the spatulate pads
7 formed into the inner and outer ends thereof; and,

8 a disposable frame connected to the leads.

1 22. (New) The leadframe of claim 21, further comprising a die pad disposed in
2 the central region and adjacent to the inner ends of the leads, the die pad having a re-
3 cessed shoulder extending around a periphery of a lower surface thereof.

1 23. (New) A semiconductor package of a type that includes a ductile metal lead-
2 frame having a plurality of elongate leads radiating out from a central die pad, a semi-
3 conductor die mounted on the pad, a plurality of wire bonds connecting the die to the
4 leads, and a protective plastic body molded over the leads, the pad, the die, and the wire
5 bonds, the improvement in combination therewith comprising:

6 a spatulate wire bonding pad formed into an inner portion of each lead and adja-
7 cent to the die pad; and,

8 a spatulate locking pad formed into an outer portion of each lead and intersecting
9 with a side wall of the plastic body.

1 24. (New) The semiconductor package of claim 23, wherein the wire bonds are
2 connected to the wire bonding pads.

1 25. (New) The semiconductor package of claim 23, further comprising a land
2 defined on a lower surface of each lead by and between the spatulate pads, each land
3 having a lower surface exposed through a lower surface of the plastic body.

2 cessed shoulder formed into a periphery of a lower surface of the die pad such that a cen-

3 tral portion of the lower surface inside of the shoulder is exposed through a lower surface
4 of the plastic body.

1 27. (New) The semiconductor package of claim 23, wherein the leads, the die
2 pad, and the spatulate pads have coplanar upper surfaces.

1 28. (New) A semiconductor package of a type that includes a ductile metal lead-
2 frame having a plurality of elongate leads radiating out from a central die pad, a semi-
3 conductor die mounted on the pad, a plurality of wire bonds connecting the die to the
4 leads, and a protective plastic body molded over the leads, the pad, the die, and the wire
5 bonds, the improvement in combination therewith comprising:

6 means formed into an outer portion of each lead and intersecting with a side wall
7 of the plastic body for resisting penetration of moisture into the package along the lead.

1 29. (New) The semiconductor package of claim 28, wherein the means for re-
2 sisting penetration by moisture comprises a spatulate locking pad formed into an outer
3 portion of each lead and intersecting with a side wall of the plastic body.

1 30. (New) The semiconductor package of claim 28, further comprising:
2 means formed into an inner portion of each lead and adjacent to the die pad for

1 31. (New) The semiconductor package of claim 30, wherein the means for in-
2 creasing the wire bonding area comprises a spatulate pad formed into the inner portion of
3 the lead.

1 32. (New) The semiconductor package of claim 28, further comprising means
2 formed into a lower surface of the die pad for resisting penetration of moisture into the
3 package along the die pad.

33. (New) The semiconductor package of claim 32, wherein the means for resisting penetration of moisture comprises a recessed shoulder formed into the lower surface of the die pad around a periphery thereof, a middle portion of the lower surface being exposed through a lower surface of the plastic body.

In accordance with 37 CFR 1.121 (c)(1)(ii), Attachment B provides marked up versions of the claims containing the newly introduced changes.

REMARKS

This Preliminary Amendment is submitted before an examination of this Application to correct minor typographical errors in the Specification, and to add 13 new apparatus claims (21-33) to those previously elected (13-20) for examination following a telephonic restriction requirement made in this Application on or about 11/17/00. This Amendment adds no new matter.

If there are any questions regarding the above Preliminary Amendment, the Examiner is respectfully requested to contact the undersigned at (949) 718-5200.

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EL595375217US

Respectfully submitted,



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